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ABSTRACT

Productivity sharing plans were studied to determine how they operate, what benefits result, and whether long-term increases in productivity can be realized through the program. Thirty-six firms were interviewed that had productivity sharing plans. Nine firms that had either rejected adoption of a productivity sharing plan or were still considering implementing one were also interviewed. Productivity sharing programs were found to have evolved from individual incentive systems to group incentive systems. Besides profit sharing, the three most commonly cited group-gain sharing plans were Scanlon, Rucker, and Improshare. Information obtained from employees, union representatives, and firm officials provided evidence of monetary benefits and nonmonetary benefits (improved labor-management relations, fewer grievances, less absenteeism, and reduced turnover). The majority of respondents expressed satisfaction with their plans and believed current benefits warranted their continuation. Depending on a company's reason(s) for adopting a productivity sharing plan, certain factors varied, including types and numbers of employees covered, roles of consultants, basis and conditions for bonus payments, and amount of assurance employees receive that payments are equitable. Difficulties encountered with productivity sharing plans were development of a workable bonus formula and resistance by employees and management. (YLB)

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PREFACE

This study of productivity sharing plans was made as a part of a broader, congressionally requested review of the Council on Wage and Price Stability's efforts to focus on productivity as a means of reducing inflation.

GAO's direct involvement in productivity issues began in the early 1970s when the agency initiated a project to create the Federal Productivity Measurement Program. That program now provides productivity measures covering two-thirds of the Federal Government.

Our efforts in the productivity area have continued to expand. We now examine not only Federal productivity issues but also the impact of the Federal Government on private sector and State and local government productivity.

We consider this study to be an important one in that it examines an effective productivity improvement technique that is of increasing interest to employers and employees. The performance of the productivity sharing plans studied suggests that these plans offer a viable method of enhancing productivity. This is especially important now when the United States is faced with a serious decline in national productivity growth and a high inflation rate, both of which affect the competitive position of many firms as well as the standard of living of every citizen.

While productivity sharing plans are not a panacea for every firm or the solution to the Nation's economic problems, they warrant serious consideration by firms as a means of stimulating productivity performance, enhancing their competitive advantage, increasing the monetary benefits to their employees, and reducing inflationary pressures.

Many of the firms included in our study achieved significant savings from their productivity sharing plans and also enjoyed many nonmonetary benefits. Firms that provided financial information on the results of their plans averaged savings of almost 17 percent in work force cost. Other benefits attributed to the plan included improved labor-management relations, reduced absenteeism and turnover, and fewer grievances.

This study is being published in the hope that it will be of use to those organizations interested in motivational techniques for enhancing productivity. The study discusses productivity sharing plans from the perspective of their evolution, differences from other incentive plans, and effectiveness.

The study was made possible through the cooperation and assistance of officials of firms we contacted; consultants in the field; the American Productivity Center; and various other business, labor, and academic representatives. Their contribution to our work is greatly appreciated.

D. L. Scantlebury
Division Director and
Chief Accountant of GAO

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CHAPTER 1

INTRODUCTION

The decline of the Nation's productivity is a matter of increasing concern. The reason for this concern is that productivity growth is an important factor in controlling inflation. From 1948 to 1965, productivity growth in the nonfarm, business sector averaged 2.6 percent annually, while growth in hourly compensation averaged 4.6 percent. Between 1965 and 1973, the growth rate fell to 2 percent per year while hourly compensation increased to 6.6 percent. Since 1973, the average annual rate of growth in productivity has been less than 1 percent. During the same period, hourly compensation increased at an average annual rate of 9 percent. When wages rise without corresponding growth in output, the costs for businesses increase. To maintain profit margins, firms raise prices to cover their higher unit labor costs and, as a result, inflation is increased and the average standard of living is lowered.

Many factors are blamed for the productivity slowdown, including

--the high cost of Government regulation and reporting requirements,

--a reduction in capital investments to improve productive capacity,

--a decline in research and development activities which lead to innovations in technology,

--a change in worker attitudes,

--the change in composition of the work force, and

--a shift away from manufacturing to service occupations.

However, researchers have never been able to account for all the productivity changes using these variables.

A 1975 National Science Foundation supported study at New York University investigated worker motivation, productivity, and job satisfaction. According to the study, the principal factor in creating highly productive and satisfied workers was recognition and reward for effective performance. The study concluded that the reward should be meaningful to the employee, whether it is financial or psychological or both. Managers at firms have increasingly recognized not only that employee incentives can result in greater productivity but that workers often know more about their jobs than anyone else and can make valuable suggestions for improvement.

The oldest incentive plans are individually oriented. Individual incentives, such as piecework, reward an employee directly for the amount of work done. Group incentive plans, on the other hand, are gain sharing plans in which a bonus or percentage of profits is paid to a group of employees based on its overall performance. Other approaches that do not provide financial incentives but rather seek to motivate by improving the work environment are known as quality of work life (QWL) plans.

One form of group incentive that has received attention recently is productivity sharing. Productivity sharing plans are designed to measure the productivity of a plant or firm and to share the benefits of productivity gains with all participating employees. The three commonly used plans are Scanlon, Rucker, and Improshare.

Productivity sharing plans differ in the formula used to compute productivity savings and in the implementation method employed. Both Scanlon and Rucker plans generally measure the payroll of the plant or firm against total dollar sales, and compare it to the past average of several years. The Improshare plan measures output against total hours worked. Hence, while Scanlon and Rucker plans use dollars as the measurement unit, Improshare uses hours. These plans are modified by adjusting the formulas used for bonus calculations to factor out increases or decreases in the selling prices of the product.

All three productivity plans are flexible regarding the makeup of the group involved in the plan. Direct and indirect production workers as well as management may be included. Engineered standards are not necessary for the functioning of any plan. Scanlon plans rely heavily on labor-management productivity committees as the focal point for worker involvement and plan implementation. Rucker plans also use labor-management committees, and Improshare plans allow, but are not built around, such committees.

The various types of incentive plans are discussed in detail in chapter 2.

OBJECTIVES, SCOPE, AND METHODOLOGY

We studied productivity sharing plans as part of a broader, congressionally requested review of the Council on Wage and Price Stability's efforts to stimulate productivity. 1/ We selected productivity sharing plans because the Council was unwilling to exempt them from the wage and price standards despite indications

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1/The Council on Wage and Price Stability Has Not Stressed Productivity In Its Efforts To Reduce Inflation, (FGMSD-81-8, Oct. 16, 1980).

that they provide a noninflationary technique for improving productivity. The main objectives in the study were to determine

--how productivity sharing plans operate and what benefits result and

--whether long term increases in productivity can be realized through productivity sharing.

Although the exact number of firms involved with productivity sharing plans is not known, it is thought to be about 1,000. Through contacts and visits with consultants and productivity organizations, we developed a list of 78 firms believed to have productivity sharing plans and 18 firms said to be considering such plans. We sent letters to these firms asking them to participate in our study and followed up with telephone calls to determine their interest. Subsequently, officials of 54 firms nationwide were interviewed to discuss their experience with productivity sharing and other incentive plans. The firms we interviewed are profiled in appendix I.

Participating officials were assured that their names and the names of their firms would be kept confidential. Pledges of confidentiality were considered necessary because firms often want to maintain a low profile about their plans and because many of these firms believe their plans give them a competitive advantage. Some firms also believed they were not in compliance with the wage and price guidelines then in effect.

From our lists, we selected and interviewed 36 firms that had productivity sharing plans and 9 firms that had either rejected adoption of a productivity sharing plan or were still considering implementing one. Firms with productivity sharing plans were selected to provide a cross section among different types of plans, size of firms, and length of time in place. Because of the small number of firms identified as considering a productivity sharing plan, we interviewed all nine companies that agreed to participate. We found that two of these firms had considered but ultimately rejected productivity sharing plans.

To broaden the report's focus, we interviewed nine firms that did not have productivity sharing plans but did have other types of incentive plans such as quality of work life, profit sharing, and incentives based on engineered standards. These were identified through a review of applicable literature and were assured the same degree of confidentiality as was promised the productivity sharing firms.

We also conducted a roundtable with business and labor leaders, as well as economists and others knowledgeable in the area, to discuss the Council on Wage and Price Stability, inflation, productivity, and productivity sharing plans. Participants

were asked to respond to specific questions regarding (1) current Council policies relating to the treatment of productivity sharing and other group productivity plans and (2) the roles these plans might play in anti-inflation policy as well as in improving a firm's productivity.

CHAPTER 2

THE EVOLUTION OF PRODUCTIVITY-SHARING PROGRAMS--THEIR USE AND FUTURE

A key goal in managing people has always been productivity improvement. Either a financial incentive or some improvement in the quality of work life that is meaningful to employees has been found to elicit increases in productivity.

INDIVIDUAL INCENTIVE SYSTEMS

The earliest and simplest type of incentive plan was direc payment for work done, or piecework compensation. Such plans tied pay directly to performance to achieve significant labor productivity gains. Over the years these incentive plans have been refined and modified. The modifications were heavily influenced by "scientific management," a school of thought established under the leadership of Frederick Taylor in the early 1900s. However, even before Taylor's work, Frederick Halsey recognized that employees were reluctant to increase productivity under individual piece rates because they feared management would raise standards.

The Halsey plan was perhaps the first to recognize the unworkability of straight piece rates in most settings. Plans developed since that time commonly have a base rate plus an incentive premium for above normal or standard time. For example, the Bedaux plan was similar to Halsey's, but it was based on engineered standards with the benefits shared between the direct (production) and the indirect (support) workers. The Gantt plan also guaranteed a base rate to those who produced below the standard and a high piece rate or premium to those who produced above the standard.

Currently, industrial firms use a method called measured daywork, which may be combined with an incertive system. Measured daywork is used to encourage good performance or to reprimand poor performance and normally includes work study techniques such as time studies and methods measurement. When coupled with an incentive system, the worker is normally paid the standard base rate when beginning employment. Subsequently, the worker's actual performance is compared with the standard, and the hourly rate increases or decreases according to the past relationship between actual and standard performance--as performance increases, so will the incentive payment and vice versa. Although such an incentive plan is promoted because it avoids short term fluctuations in production, it also hides inefficiencies and may not motivate as well as more direct systems. In practice, the application of measured daywork as an incentive system is very flexible, and thousands of companies undoubtedly use it in some form.

At least three characteristics underlie most of the individually oriented incentive systems: (1) they normally have a base

rate of pay with an incentive premium, (2) they are based on engineered standards, at least in industrial settings, and (3) their use, although widespread, appears to be declining. Several reasons for the decline can be noted.

--Many people question the ability of a company to maintain a fair, equitable, and motivating incentive system for either individuals or small groups.

--Workers often resist new equipment or methods because of the possible impact on their earnings. Hence, the plan may become dysfunctional to the goal of productivity improvement.

--Unions frequently oppose individual incentive plans because the plans may pit one employee against another, and if not accurately maintained, the plans are often a source of grievances.

--The systems often ignore indirect workers and can therefore create conflicts between them and direct workers under the incentive plan.

--Accurate maintenance of the standards is costly. Also, new tasks and processes can be a constant source of problems.

--Since only labor costs are normally considered, waste and inefficiency may actually escalate material and equipment costs.

--Peer pressure or fear of management's upgrading standards or other actions may restrict output.

--The systems have less applicability as the Nation moves toward more automation.

Individual suggestion systems

Individual suggestion systems reward employees for suggestions that reduce costs. The reward is normally a percentage of the first year's savings up to a maximum amount. The award is approved through a formal submission, review, and approval process. Many organizations have installed such plans with varying degrees of success. Results, as measured by cost savings or productivity improvements, often depend on the extent of management's commitment to the plan and the opportunity for fair and rapid feedback. The success of these programs is also often hampered by the presence of any of the negative conditions outlined above for individual incentives.

GROUP INCENTIVE SYSTEMS

Management's need for increased productivity expanded the gain sharing concept beyond individual incentives. Although group

sharing--including profit sharing--has been in existence for many years, especially in the higher managerial levels, only recently has it attracted considerable interest as a total organization incentive system. One of the reasons for this movement is their success at higher managerial levels. Many managers believe that if group plans can help obtain and keep competent managers, they can have the same effect with other employees. Furthermore, some managers believe that all employees can contribute significantly to organizational performance and most group plans encourage this. Others believe that such plans recognize the interdependencies of various functions and, consequently, are the only plans that will work. Finally, increased promotion of and the availability of literature on gain sharing have been contributing factors to the growing interest in group incentive programs.

Profit sharing

Profit sharing is the oldest type of gain sharing plan. Managers and employee groups have long participated in profit sharing, which has a certain underlying appeal to managers, since bonuses will be paid only through increased profits. Profit sharing is distinguished from productivity sharing in that it is not based on sales performance or output per hour. But it is similar to productivity gain sharing in financial terms; both plans provide benefits on either a cash or deferred basis.

As of December 31, 1978, 282,397 deferred profit sharing plans were registered with the U.S. Treasury. In addition, about an equal number of cash plans exist. When profit sharing is applied on a cash basis, numerous firms have cited significant improvement in performance. Some managers believe that this success results from emphasis on cost reduction, integration of personal and organization goals, ease of administration, unlikelihood of undermining employee security, and payment of bonuses only when profits exist. However, problems also do exist, including the inability of employees to relate to the system, the unwillingness of management to share information with employees, the lack of a relationship between profit sharing and productivity performance, the difficulty in stimulating employee involvement, and delays in payment because profit is not determined until the end of the period.

Besides profit sharing, the three most commonly cited group gain sharing plans are Scanlon, Rucker, and Improshare. Although considerable differences exist among the plans, their similarities include (1) frequent bonuses, (2) use of a production rather than a sales-based formula, (3) emphasis on employee involvement, and (4) elimination of individual incentive systems. In addition to the above plans, many firms have had plans custom designed.

Scanlon plan

Joseph Scanlon developed the Scanlon plan in the 1930s to save a failing company. Three general principles underlie the plan:

employee involvement, bonus payment, and identity with the firm. Employee involvement is accomplished through a formalized suggestion system and two overlapping committee systems. Elected employee representatives meet at least monthly with their departmental supervisor to review productivity, cost reductions, or quality improvement suggestions. These committees, often called production committees, have certain decisionmaking authority for less costly suggestions. Considerable work can occur in any area affecting costs or quality. More costly suggestions, or those affecting another department, are referred to a higher level committee.

The higher level committee--normally called the screening committee--meets monthly to discuss suggestion activity, bonus results, and other items such as backlogs and quality problems. Membership normally includes elected employee representatives from the production committees and appointed management representatives.

The second principle involves the payment of a bonus to participating employees for increased productivity. Traditionally, many Scanlon plans start with the following ratio calculation:

$$\text{Base ratio} = \frac{\text{Payroll costs to be included}}{\text{Value of production}}$$

Normally, a historical study is made to determine the proper base ratio. In any month when actual labor costs are less than the established base ratio, a bonus is earned. For example, if the base ratio is 20 percent and in month X the value of production (sales plus or minus inventory) equals $1,000,000, then allowed labor equals $200,000 (1,000,000 X .20). If actual labor costs equal $160,000, then a bonus pool of $40,000 is generated ($200,000 - 160,000).

Some of this bonus pool is reserved for deficit months and for a year-end jackpot to reward continued high performance. Normally a certain percentage is given to the company to pay for capital expenditures and to become more competitive. The remainder is paid to all participating employees as a monthly bonus based on a percentage of their wages.

This calculation was established because it is simple and easy to understand. Furthermore, it recognizes the interdependencies of the different labor areas. However, other variables also affect its equitability in measuring productivity, such as the product mix and capital expenditures. Some plans adjust the percentage allowed each time a major change occurs in wages or when major investments are made in capital expenditures. Other plans factor out the effects of changes in selling prices or product mix. Many firms have also installed plans that consider other alternatives, such as

--using a different labor percentage for each major product line,

--increasing the percentage to include more costs,

--becoming more specific by considering primarily physical outputs and inputs, or

--electing to employ return on investment.

The key to the Scanlon success does not rest on the particular calculation, but rather on the congruence of management and employee objectives and their commitment to the success of the plan as long as it is reasonably equitable to customers, company, and employees. The plan is normally voted in by the employees for a trial year, and a vote on whether to renew the plan is taken at the end of that year.

Identity with the firm--the third Scanlon plan principle--is developed through education on and communication and discussion of the plan's goals, objectives, problems, and opportunities. Considerable management development is often necessitated, especially at the supervisory level, along with better managerial planning and information systems.

Commonly cited accomplishments of the Scanlon plan, in addition to increased productivity, include better teamwork and cooperation, faster responses to problems, better product quality, less resistance to change, more employee involvement, and lower rates of absenteeism and turnover. When the plan is unsuccessful, not only are those accomplishments not achieved but the level of trust in management is lowered and bonus earning opportunities are limited.

In reality, the Scanlon plan, in its most successful form, is more a management philosophy to improve performance than an incentive plan. Although probably fewer than 400 such plans exist, they have attracted considerable interest from behavioralists because of their heavy emphasis on quality of work life variables, including employee involvement, recognition, and a feeling of achievement.

Rucker plan

This plan also evolved during the Depression when Allen W. Rucker noted the existence of a historical relationship between payroll costs and what he called production value (actual net sales plus or minus inventory changes minus outside purchased materials and services).

The plan, for which an employee vote is considered optional, emphasizes employee involvement through the establishment of a suggestion system, Rucker committees, and improved labor-management communications. It is a group plan where everyone, excluding top executives, shares a percentage of gains. Individuals are given recognition for suggestions and other activities but are not

rewarded financially. A 30-percent reserve is normally established for deficit months. The process used to elicit commitment and suggestions is, in many ways, similar to those underlying the Scanlon plan.

The Rucker bonus calculation establishes a historical relationship between labor and value added. For example:

Net sales	$ 900,000
Inventory change (increase)	100,000
	1,000,000
Less material and supplies used	500,000
Production value (value added)	$ 500,000

$$\text{Rucker standard} = \frac{\text{Payroll costs included}}{\text{Production value}}$$

Assuming that labor costs in the base period(s) were $300,000, the Rucker standard becomes:

$$\frac{\$300,000}{\$500,000} = .60$$

Hence, in any month that the actual labor costs are less than 60 percent of production value, a bonus is earned.

This calculation partially accounts for variables such as product mix. It should also encourage employees to save on materials and supplies since they would obtain much of the benefit. If a 5- to 7-year historical analysis indicates an unstable relationship between labor and production value, the Rucker plan is not installed. The number of Rucker plans is unknown because of limited research and sharing of knowledge about the use of this and similar plans.

Improshare plan

Improshare (IMproved PROductivity through SHARing) is relatively new and is apparently growing quite rapidly because of its ease of installation and lack of emphasis on employee involvement. The goal of Improshare is to produce more products in fewer labor hours. Management retains all rights and a vote is not normally used. Improshare measures performance rather than dollar savings.

The plan is based on the number of work hours saved for a given number of units produced compared to the number of hours required to produce the same number of units during a prior base period. The savings realized by the reduced actual hours are shared

by the firm and the employees involved directly and indirectly with producing the units.

The plan is not affected by changes in sales volume, technology, or capital equipment. The Improshare plan can easily be divided according to product line and adapted to small groups and departments in a company without being affected by changes in product mix.

Two aspects are key to the program--work hour standards and the base productivity factor. For an example of 40 production and 20 nonproduction workers, the situation might be as follows.

Base period

$$\text{Work hour standard} = \frac{\text{Total production work hours}}{\text{Units produced}}$$

$$\text{Product A} = \frac{20 \text{ employees} \times 40 \text{ hours}}{1000 \text{ pieces}} = 0.8 \text{ per piece}$$

$$\text{Product B} = \frac{20 \text{ employees} \times 40 \text{ hours}}{500 \text{ pieces}} = 1.6 \text{ per piece}$$

Product A = .8 x 1000 =	800
Product B = 1.6 x 500 =	800
Total standard value hours	1,600

(Note: Total standard value hours could be simplified to be standard time in the base period.)

$$\text{Base Productivity Factor (BPF)} = \frac{\text{Total production and nonproduction hours}}{\text{Total value standard hours}}$$

$$\text{BPF} = \frac{(40 \text{ production} + 20 \text{ nonproduction employees}) \times 40 \text{ hours}}{2400/1600} = 1.5$$

(Note: Nonproduction workers are now added.)

Bonus calculation

Bonus calculation (month X)

Product A = 0.8 hours x 600 units x 1.5 =	720
Product B = 1.6 hours x 900 units x 1.5 =	2,160
Improshare hours (standard hours for actual units produced)	2,880
Less actual hours	2,280
Gained hours	600

$$\text{Employee share of gained (saved) hours} = \frac{1/2 \text{ gained hours}}{\text{actual hours}} = \frac{300}{2,280} = 13.1\% \text{ bonus}$$

Improshare includes the time of both direct and indirect workers and can be easily established because it uses existing records and, at least in the beginning, places little emphasis on employee involvement or organizational development. The size of bonuses is subject to a ceiling. A buy-back provision is normally included, which essentially gives employees a cash award to raise standards. The time allowances are changed only for capital expenditures and method changes. The goal is clear--to get more output with fewer hours of either direct or indirect labor.

Proponents of the plan argue that while no formal labor-management structure is required, the operation of the program results in improved interaction between employees and management. The reason for this improvement is that under Improshare, management and employee goals are the same--improved productivity and reduced production costs. Traditionally, the two groups have had different goals. Under the sharing plan, however, workers share the gains and the losses with management and have an incentive to improve their performance.

NONFINANCIAL INCENTIVE PROGRAMS

In conjunction with financial incentives, numerous types of nonfinancial incentives are commonly used to motivate employees and to improve the quality of work life. Many firms have recently experimented with quality of work life programs and although the short run goal may not be productivity improvement, this approach will likely be an important factor in increasing productivity in the long run. That is, the more an organization attempts to make its goals compatible with individuals' goals, the more productive those individuals will be. Similarly, if employees are involved with improving operations, managers believe those employees will often become more productive, as well as have a higher level of job satisfaction, without direct increases in labor costs.

Some quality of work life programs are individually oriented; others are group oriented. Most programs depend heavily on employee involvement and often result in increased job satisfaction and sometimes result in increased productivity and reduced turnover and absenteeism.

Individually oriented systems

"Management by objectives," where employees are involved in negotiating standards against which performance is measured, is used by many firms. This system is very common and can be applied at all organizational levels, although it is especially used at the managerial level.

"Earned time" allows employees more leisure time once performance standards are met. Under this system employees are given production standards and when they are met, the employees may

leave the work site. Pay is raised on production, not hours. Although it probably does not increase productivity, the approach does recognize the value the employee may place on leisure time.

"Flextime" is a quality of work life technique that recognizes employees' needs for varying time schedules. Usually a "core" time is established when all employees must be present. Some companies believe that flextime has increased productivity and has made such other improvements as reducing turnover and absenteeism.

Group oriented systems

Many firms have initiated group quality of work life programs to increase either productivity or product quality. The success of the programs seems to be dependent on the degree of management enthusiasm. Objectives of such systems are similar to those underlying group incentive systems, but getting employee commitment is more difficult.

Quality circles are a management approach patterned after the Japanese "sho-shudan-kanri" system where employees voluntarily work with managers in small groups to improve productivity or quality by identifying and resolving production problems. Their success relies heavily on management's commitment to the system and the involvement of employees and supervisors in interpersonal skills and problem solving techniques.

Labor-management committees have objectives similar to quality circles but generally are not as formalized. They normally consist of union and management participants who agree to solve commonly agreed-to problems. The committees have operated at the plant or citywide level with varying degrees of success. Unfortunately, extensive time is spent breaking down traditional communication barriers, thus making increased productivity only a distant goal.

Other group approaches include zero defects (somewhat more narrow in scope than quality circles), safety programs, and autonomous work group programs.

APPLICATION OF GROUP INCENTIVE SYSTEMS TO SERVICE INDUSTRIES

Although many service industry companies use profit sharing, they have tended to not use other types of group incentive plans. Little reason exists for their avoiding productivity sharing since output measures may be easier to develop in many service industry firms than in manufacturing firms because inventories are less of a problem. In fact, many manufacturing firms have more indirect than direct labor employees, and therefore face many of the measurement problems encountered in service industries.

Productivity sharing plans have been successfully applied in a limited number of hospitals, governments, food services, insurance companies, repair firms, and banks. The primary reasons for the limited application probably include the lack of (1) productivity measures, (2) dedication to productivity improvement, (3) management sophistication, and (4) knowledge of productivity sharing plans. However, since service industries are increasingly interested in productivity improvement, the use of productivity sharing plans may become more widespread.

Significant measurement problems may occur when output calculations are difficult to determine, as is the case in some Government agencies. In such cases, gain sharing might be determined by savings under budget as well as quality monitoring. All of the other quality of work life systems that underlie gain sharing could be applied without difficulty.

FUTURE PROSPECTS OF INCENTIVE SYSTEMS

While productivity sharing and quality of work life programs currently are not widespread, their use will probably increase significantly. The reasons for this include:

--The decline in the number of jobs where individual incentives are applicable due to advances in technology and automation.

--The increased recognition that employees do have an effect on productivity.

--The need to stress productivity improvement.

--Better and more flexible gain sharing measurement systems.

--More desire to use the creative and educational skills of employees.

--Increased recognition that gain sharing can be applied in the service industry.

--Better reference materials.

CHAPTER 3

RESULTS OF PRODUCTIVITY SHARING AND OTHER INCENTIVE PLANS

Proponents of productivity sharing plans say these plans can increase a firm's productivity and provide many benefits to both the firm and its employees, including higher wages in the form of bonuses to employees, increased profitability for the company, a spirit of cooperation among employees and between employees and management, and greater involvement and commitment of employees to their work.

The information we obtained from employees and union representatives provided ample evidence of the value of productivity sharing. Many firms achieved significant savings from their productivity sharing plans and the majority of firms expressed satisfaction with them. Moreover, most officials we interviewed at firms that had other types of incentive plans believed that these plans also resulted in significant cost savings.

MONETARY BENEFITS THAT CAN RESULT FROM PRODUCTIVITY SHARING PLANS

Many of the firms included in our review attributed significant work force savings to their productivity sharing plans. Savings averaged 17.3 percent at the 13 firms with annual sales of less than $100 million. At the other 11 firms annual sales were $100 million or greater, and savings averaged 16.4 percent.

Among the 24 firms providing financial data, those with a productivity sharing plan in effect the longest showed the best performance. Firms that had plans in operation over 5 years averaged almost 29 percent savings in work force cost for the most recent 5-year period, with individual firms' average savings ranging from 13.5 to 77.4 percent. Those firms with plans in operation less than 5 years averaged savings of 8.5 percent. To cite some specific examples:

--A large manufacturing company had all 360 employees at one of its plants covered by a productivity sharing plan. The firm reported savings in work force cost of 77.4 percent for the last 5 years. Savings were attributed to improved labor-management relations, which resulted in improved processing techniques, better use of equipment, and reduced energy consumption. In the past 3 years, sales increased by $6 million while the cost of goods sold decreased by $1.2 million.

--A manufacturing firm with approximately 2,000 of its 2,300 domestic employees covered by a productivy sharing plan saved an average of 24 percent of participating work force

cost in the last 5 years with its plan. Annual savings ranged from 20 to 35 percent. A company official stated that savings resulted from implemented employee suggestions and from the increased productivity of employees who were "working smarter and harder." In 1979 the remaining domestic employees were put under the plan.

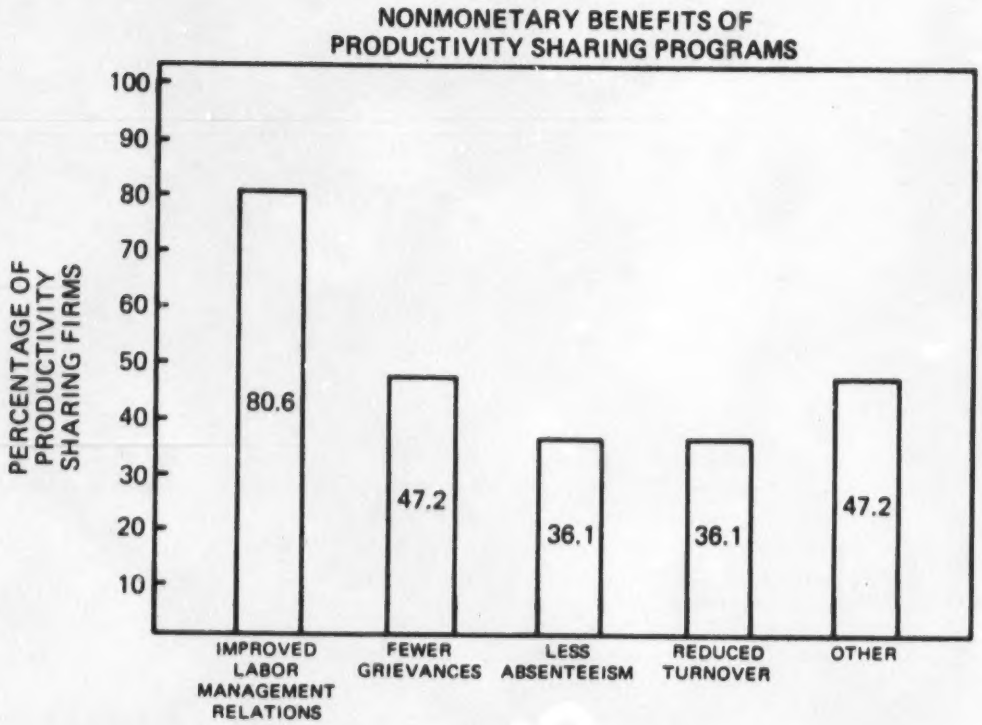
--At another manufacturing company, 215 of the 225 employees were covered by productivity sharing. Ten company salesmen were paid on commission basis and did not participate in the plan. Average savings over the latest 5-year period was 14 percent of work force cost and ranged from 11 to 18 percent. Improved employee performance and less resistance to labor-saving approaches were described as important factors influencing the savings.

The majority of productivity sharing plan firms did not periodically assess the savings realized to determine their source and nature. Only nine firms indicated they made such an assessment, and of these, only four could show documentation for them. Officials at a number of firms said the source and nature of savings were difficult to measure. When asked what they believed were the most important factors in realizing the increased savings, officials gave the following responses.

Number of firms	Percentage of responses	Comments
10	14.9	Improved performance of employees
10	14.9	Change in employees' attitudes, job interest, and the like
8	11.9	Increased productivity
8	11.9	Reduction in scrap, rework, and waste
8	11.9	Better use of materials, supplies, and equipment
7	10.5	Cost saving suggestions
6	9.0	Improved processes or procedures
5	7.5	Better product quality
5	7.5	Other
67	100.0	

NONMONETARY BENEFITS THAT CAN RESULT FROM PRODUCTIVITY SHARING PLANS

The following graph summarizes firms' responses to the question of whether their productivity sharing plans have resulted in nonmonetary benefits, such as improved labor-management relations, fewer grievances, less absenteeism, and reduced turnover.



Other benefits mentioned by some of the firms included better teamwork, increased job satisfaction, closer identification with the firm, and less resistance to change.

SATISFACTION OF FIRMS WITH PRODUCTIVITY SHARING PLANS

The vast majority of firms expressed satisfaction with their productivity sharing plans and believed that the current benefits

to the firm from their plans warranted their continuation. Officials at 22 firms said that the benefits originally anticipated were realized. On the other hand, several firms said that higher bonuses were expected than had actually been presented. For the most part, firms said they had never considered abandoning their plan. They believed that their productivity sharing plan gave them a competitive advantage in marketing their products or services.

SATISFACTION OF UNION OR EMPLOYEE REPRESENTATIVES WITH PRODUCTIVITY SHARING PLANS

During a roundtable discussion, several labor union officials questioned whether productivity sharing plans could provide long term benefits. For example, one official stated that while productivity sharing plans can improve productivity in the short term, productivity begins to taper off as time passes. Our data does not support this claim. In fact, at several of the firms, such criticism was directed more often at incentive plans based on engineered standards than productivity sharing plans.

At most of the firms where an employee or local union representative was interviewed, the productivity sharing plan was stated to have had a positive effect on the work force. That is, climate between labor and management was said to have improved over what had existed before the productivity sharing plan was implemented.

Employee and union representatives cited increased wages as the most important reason for the improved climate between management and the work force. Other reasons included improved labor-management relations, better communication, greater voice in management of the company, and better acceptance of employees' suggestions by management.

RESULTS OF OTHER INCENTIVE PROGRAMS

Most of the officials we interviewed at firms that had adopted incentive plans other than productivity sharing believed that these resulted in significant benefits for their company. For example:

--A large manufacturing corporation had instituted a profit sharing plan which was tied to improvements in productivity. Annual payouts were made in company stock. Among the benefits attributed to the plan were increased sales and earnings; improved product quality; and a strong sense of belonging, competitive zeal, and company loyalty. Over the last 10 years, productivity growth averaged 15 percent.

--Another corporation included almost all of its 15,000 production employees on individual or group incentive plans based on engineered standards. The company gave its incentive plan top priority. Standards were consistently monitored, reviewed, and revised as necessary. According to a

top official, production employees regularly earned 30 to 35 percent above their wage rate and the company enjoyed higher profits than any of its competitors.

However, not all firms were pleased with their incentive plans. Officials at two firms expressed dissatisfaction with their traditional wage incentive plans.

--Officials of a large industrial corporation with annual sales approximating $800 million said they were gradually phasing out the firm's engineered standard wage incentive plan. At the time, about 1,000 of the company's 15,000 employees were covered by direct incentives. Administrative costs to maintain the plan were considered excessive and the increasing automation of the production process, according to company officials, was reducing the ability of individual workers to affect production.

--At another corporation, incentives based on engineered standards had once been widely used but remained in only 5 of the company's more than 100 facilities. The company believed that these incentives were too difficult to administer and that monetary incentives alone were not a sufficient motivator. As a result, the company had begun to adopt quality of working life programs at some locations. These programs have resulted in improved productivity, greater teamwork, and less absenteeism.

CHAPTER 4

FACTORS RELATED TO THE ADOPTION OF A PRODUCTIVITY SHARING PLAN

Although productivity sharing plans have been in existence for many years, they have not as yet gained widespread acceptance. Nevertheless, many firms are indicating a growing interest in productivity sharing. Although the earliest plans were adopted primarily by privately owned companies, many publicly owned corporations have also begun to adopt them for various reasons. Depending on a company's reason or reasons for adopting a productivity sharing plan, the type and number of employees covered by sharing plans will vary. Other factors that will vary include (1) the role consultants, if used, will play in designing and implementing a plan, (2) the basis and conditions for bonus payments, and (3) the amount of assurance employees receive that the payments are equitable.

PRODUCTIVITY SHARING PLANS WERE ADOPTED FOR VARIOUS REASONS

The following examples provide insight into the circumstances that can lead to the adoption of productivity sharing plans.

--An official of one large corporation said that although the firm was successful, management felt that productivity could be improved. The company was experiencing high employee turnover, and dedication to the company seemed to be generally lacking. Moreover, facilities and equipment were not being used to capacity and product quality was not completely satisfactory. This official had been interested in productivity sharing plans for many years and through his efforts convinced others in top management to try the program.

--A productivity sharing plan was adopted at another firm as a replacement for a piecework incentive system. Management had become dissatisfied with piecework because of continual conflict with labor over what the standards should be. Moreover, employees did not exhibit a sense of team work--each was out for his or herself. Also, management did not believe that piecework encouraged improved methods or production processes.

--During wage negotiations at one company, the union wanted an incentive, such as a Christmas bonus. The company also favored some type of incentive but wanted it tied to productivity. About that time, management became aware of productivity sharing and consultants were brought in to design and help implement a system.

Most firms adopted productivity sharing plans at locations where other incentive plans were not operating. Where other incentive plans existed, they were usually discontinued once productivity sharing was in place. Productivity sharing plans were not used as a substitute for competitive wages and benefits. As shown in the following table, over 90 percent of the firms participating in the study indicated that employees who earned bonuses also received wages and benefits that were competitive with other firms in their geographic areas. Also, productivity sharing plans apparently were not established to avoid unionization. Almost 60 percent of the firms with productivity sharing plans had unions at locations where a plan was established, and of the remaining firms, only one indicated that a reason for adopting a plan was fear of unionization. Over half of the firms that were considering or had considered adopting a plan were unionized.

Wages and Benefits of Employees Receiving Bonuses and Those Not Receiving Bonuses Compared to Prevailing Wages and Benefits

Wages and benefits (not including bonuses) compared to prevailing wages and benefits	Employees receiving bonuses		Employees not receiving bonuses	
	Number of firms	Percent	Number of firms	Percent
Better	13	37.1	4	23.5
Same	19	54.3	11	64.7
Worse	3	8.6	2	11.8
Total	35	100.0	a/ 17	100.0

a/At 18 firms, all employees at the facility received productivity sharing bonuses.

EMPLOYEE COVERAGE BY PRODUCTIVITY SHARING PLANS VARIES

In general, the smaller the company, the higher the percentage of employees covered by the productivity sharing plan. For example, many of the smaller firms--those with annual sales of less than $250 million--included at least 95 percent of their work force in the plan. On the other hand, the larger corporations contacted tended to limit coverage to one or two plants or to a small segment of the work force. Usually when a productivity sharing plan was put into effect, coverage was extended to all categories of employees--supervisory, administrative, and/or production support personnel as well as direct production workers. In most cases new employees were covered by the plan after an initial waiting period of from 30 to 90 days.

MANY FIRMS HAVE EMPLOYEES VOTE ON ADOPTION OF PRODUCTIVITY SHARING PLANS

At 50 percent of the firms interviewed, employees voted on the productivity sharing plan prior to adoption. The approval rate ranged from 60 to 96 percent. About half of these firms polled their employees after the plan had been operating for a period of time to see if they wanted the plan to continue. In all cases the employees voted to continue the plan, and except for one case, the rate of approval was as high or higher than the initial vote.

Scanlon plans are the only type of sharing plan that normally requires an employee vote on the adoption of a plan and a revote on its continuation at the end of the first year of operation. However, we found that while most of the firms with Scanlon plans used employee votes on adopting the plans, less than 50 percent took a revote on continuing the plan at the end of the first year of operation.

CONSULTANTS PLAY AN ACTIVE ROLE IN IMPLEMENTING PRODUCTIVITY SHARING PLANS

Consultants were used by almost all firms to help design and implement productivity sharing plans. After a plan was implemented, consultants were frequently engaged to monitor progress and attend committee meetings, helping to resolve any problems that arose. The firms that did not use consultants had productivity sharing plans that measured output against total hours worked. An official at one such firm told us that he designed the plan himself after extensively researching productivity sharing plans.

BASES AND CONDITIONS FOR BONUS PAYMENTS VARY

For the most part, bonus formulas measured the payroll of the plant or firm against gross sales, adjusted for returns and allowances, or output against total hours worked. However, some firms had modified their formulas so that they were based on other factors. For example:

--A manufacturing company had modified its Scanlon plan so that the formula was based on profit rather than sales. A bonus was earned in any month to the extent that profit for that month exceeded 1/12 of 5.25 percent of the company's net worth. Any bonus earned was shared 56/44 between the company and participating employees.

--Another corporation had established a Scanlon plan at one of its facilities. The formula had been modified so that bonuses depended on four factors: production, product quality, expenses under control of participating employees, and safety. The company retained 25 percent of any savings achieved and the balance was paid to participating employees.

--Another firm based its bonus formula, in part, on the factors it believed most influenced the business. These factors were customer service; effectiveness of the work force; and efficient use of supplies, materials, and money.

Almost all firms paid bonuses on a weekly or monthly basis. The savings resulting from productivity sharing plans were split between the company and the employees, with the firms' shares of the savings ranging from a low of 25 percent to a high of 79 percent. Improshare plans typically divide all savings equally between the company and participating employees. Scanlon plans generally provide that 75 percent of the savings goes to employees and 25 percent to the firm. In Rucker plans, on the other hand, the sharing ratio is not standard but is based on the production shares attributable to labor or to the company. That is, labor receives a bonus based on its share of production value.

In some productivity sharing plans, a portion of the bonus is set aside to offset deficit periods. At the end of the year, any balance remaining in the reserve is distributed to participating employees as a year-end bonus. Twenty of the productivity sharing plan firms we interviewed reported that a portion of the bonus, ranging from 5 to 33 percent, was retained as a reserve.

MOST FIRMS ASSURE EMPLOYEES THAT BONUS PAYMENTS ARE EQUITABLE

One of the factors contributing to the success of a productivity sharing plan is the assurance employees are provided that bonuses are determined equitably and fairly. Most firms said that bonus payments were audited either by internal or external auditors or both. At 17 firms the results of audits were frequently communicated to employees. Other methods identified to assure employees of equitable treatment included posting results on a bulletin board or in a company newsletter, having sharing plan consultants review results with employees, or having management discuss results with employee representatives.

CHAPTER 5

DIFFICULTIES ENCOUNTERED WITH PRODUCTIVITY SHARING PLANS

Despite the numerous benefits claimed for productivity sharing plans, many pitfalls exist which can affect their success. When a firm attempts to establish a productivity sharing plan, it may encounter difficulties trying to develop a workable bonus formula. Other firms may have to overcome resistance by employees and management. Once the productivity sharing plan begins functioning, other problems may develop because the plan was not properly implemented or monitored. If financial reverses occur, expected cost savings may not materialize. These and other problems can result in the ultimate demise of a firm's productivity sharing plan.

OBSTACLES THAT HINDERED FIRMS IN CONSIDERING AND IMPLEMENTING PRODUCTIVITY SHARING PLANS

Three of the seven firms interviewed that were considering adoption of productivity sharing indicated that the ability to develop an appropriate bonus formula would be a major influence on whether they ultimately adopted a plan. At one firm, a lack of adequate historical records was making it difficult to develop a base period. An official at another firm said that determination of an appropriate base period was complicated by the firm's product mix, which varied substantially from year to year. A third firm, which was described by a company official as highly capital intensive, was trying to develop a bonus formula which accurately reflected productivity gains by the employees and which was not affected by price increases.

Factors being weighed by the firms considering adoption of a productivity sharing plan included developing an appropriate bonus formula, fear of rejection by the union, need for stronger commitment by management, need to raise current productivity to an acceptable level, and the need for improving markets for the company's product and increasing profitability so that a bonus could be paid.

The two firms that elected not to adopt a productivity sharing plan gave the following reasons for their decisions.

--The president of a small electric motor manufacturing firm said he decided not to adopt a plan because of an unsatisfactory relationship with consultants. About 3 years ago a consulting firm gave a presentation to company officials on the benefits of productivity sharing. Company officials were interested but the consulting firm was slow in helping the firm implement a plan. When 2 years passed and little progress had been made, the president sought the services of

another consultant. However, by this time many employees had become frustrated by the long and drawn out process. As a result the president decided not to implement a plan.

--The manager of a plant in a multimillion-dollar industrial corporation said a productivity sharing plan was considered for the plant to increase productivity and improve labor-management relations. However, officials at the corporate headquarters rejected the plant's request to adopt the plan.

Fifty percent of the firms we interviewed said they had encountered obstacles in implementing their productivity sharing plans. The obstacle most often cited was resistance by employees, management, or unions. Various explanations were mentioned for employee and management resistance. In some cases, employees on piecework feared a loss of income if productivity sharing was adopted. One firm allayed this concern by guaranteeing the wages of its piecework employees for a specified period after productivity sharing was implemented. In another firm where coverage under a productivity sharing plan was limited to production employees, resentment arose among employees not included.

Management resistance at several firms was attributed to the difficulty some managers experienced in adjusting to the participative management concept. For example, one firm reported that although employee turnover decreased because of its productivity sharing plan, turnover among managers increased.

WHY SOME PRODUCTIVITY SHARING PLANS ARE NOT SUCCESSFUL

Three firms had discontinued their productivity sharing plans and three others did not believe that the current benefits from their plans warranted their continuation. Numerous reasons were given for the lack of success at these six firms including

--financial difficulties,

--lack of management commitment or dedication,

--inadequate design or implementation,

--little or no bonus payments,

--failure to develop a good communication system between labor and management,

--insufficient monitoring of performance, and

--use of a questionable bonus formula.

Examining several cases in detail may be useful in illustrating factors which can lead to the failure of productivity sharing plans.

Case A

A multiproduct manufacturing company with annual sales of over $600 million implemented a productivity sharing plan in one of its divisions. Shortly after the plan got underway, the company incurred some major expenses which forced it to shift funds away from the division with the productivity sharing plan. This caused a layoff of a number of employees; those remaining feared that the plan would cause them to work themselves out of a job. The program's credibility plummeted and the plan was finally dropped about 6 months after it started. Although bonuses averaged 9 percent during the period the plan was in effect, management was not convinced that the bonus formula was adequate.

Case B

A small manufacturing company with annual sales of about $24 million set up a productivity sharing plan for all its employees. The plan was discontinued about 15 months later because of serious financial reverses. According to a company official, besides financial difficulties, the plan failed because it was implemented without sufficient planning. Goals were not clearly established and management was not fully committed to the plan. A union official said that participative management meetings never had high priority. Employees could not understand why they received a bonus one month but not the next and the company failed to provide an adequate explanation. When financial problems developed, the plan was abruptly dropped. As a result, the union official believed that relations between management and labor were twice as bad as they were before the program started.

Case C

A manufacturer of specialized parts established a productivity sharing plan 2 years ago. According to a company official, expected benefits never materialized. Management assumed that once the program was in place, it would take care of itself. Furthermore, a good communication system between labor and management was never established. The official responsible for the plan favored discontinuing it because bonus payments were never made and because employees and management interact only minimally.

Eight other firms noted similar problems with productivity sharing plans. However, at all of these firms officials believed that current benefits outweighed disadvantages. For example:

--A metal product manufacturer with approximately $300 million in annual sales operated a productivity sharing plan covering all employees at 1 of its 13 facilities. In the first year of the plan's operation, savings of $64,500 were generated during 5 months, while losses of $96,000 occurred in the other 7 months. The resulting $31,500 deficit was attributed to a loss of sales due to a slump in the industry.

Nevertheless, a company official expects performance to improve once business conditions pick up. The firm had no plans to abandon productivity sharing.

--A small manufacturing company included about 900 of its 1,200 employees in a productivity sharing plan. Savings from the plan averaged 27 percent over the most recent 5-year period. In addition, a company vice president said that labor-management relations had improved while employee grievances, turnover, and absenteeism had decreased since the plan's inception. Nevertheless, several top management officials expressed reservations about the plan due to a lack of good criteria to measure effectiveness.

--A division of a multibillion-dollar manufacturing corporation established productivity sharing plans at four of its smaller facilities. Most of the other plants in the division used individual incentive plans based on engineered standards. The productivity sharing plans were considered a temporary measure to be used until engineered standards could be developed. In the 4 years the productivity sharing plans had been in effect, savings realized averaged less than 1 percent of participating work force cost. The smaller savings were attributed to wide swings in volume and inadequate monitoring of the plan. However, according to a company official, productivity at these plants had improved and he believed that current benefits warranted continuing the plan.

Most of the problems mentioned in adopting or operating plans were due to internal factors, such as financial difficulties, insufficient commitment by management to sharing plans, and inadequate plan design or implementation. Despite these problems, the benefits of increased profitability and of improved employee morale and labor-management relations resulting from productivity sharing plans were thought by almost all firms to outweigh the difficulties that were incurred.

CHAPTER 6

PRODUCTIVITY SHARING PLANS CAN CONTRIBUTE TO PRODUCTIVITY IMPROVEMENT AT THE FIRM LEVEL

Productivity sharing plans are just one of many types of programs designed to motivate employees and raise productivity at the firm level. The plans can be adapted to both large and small firms as well as to either manufacturing or service industries. Despite the fact that the programs have received attention in many respected business periodicals, relatively few firms have adopted them. Because of the serious problems caused by the decline in national productivity and a high rate of inflation, we believe that firms should examine productivity sharing and other incentive plans more closely to determine whether they can contribute to their own productivity improvement.

Declining productivity has an adverse affect on the competitive position of many firms. The results of productivity sharing plans suggests that these plans offer a viable method of enhancing productivity at the firm level. As such, these plans warrant serious consideration by firms as a means of stimulating productivity performance, enhancing a firm's competitive advantage, increasing the monetary benefits of a firm's employees, and reducing inflationary pressures. In addition, successful productivity sharing plans generally result in nonmonetary benefits, such as improved employee morale and reduced absenteeism.

Management should recognize that instituting such plans requires a commitment to cooperative labor-management relations. For the plans to work, employees and labor unions must be involved during the plans' development and establishment.

While successful productivity sharing plans can produce many benefits, they should not be viewed as a panacea. The plans should only be considered by those managers who are willing to devote the necessary time and effort to implement the plans effectively. The following suggestions were derived from discussions with firms that have adopted such plans and from other knowledgeable sources.

--Obtain information on the mechanics of operation and features of all the principal types of sharing plans, as well as other types of worker motivation programs. Sources of such information are the American Productivity Center, Work in America Institute, and the numerous other productivity centers around the country.

--Solicit the views and advice of firms that have adopted successful plans, including information on tailormade refinements to the principal types of plans that may be particularly beneficial to the firm that is considering the

adoption of a program. The sources cited above, as well as the consultants active in establishing such plans, may be helpful.

--Consider hiring a consultant to assist in installing a plan even if the plan was developed by the firm.

--Once a decision has been made to adopt a particular sharing plan, advise employees and the union on its features, mechanics of operation, and benefits to the company and employees.

--Since both management and employee commitment to the sharing plan is critical to the plan's success, firms should require a vote on implementing the plan.

--Assure employees that bonuses are being determined equitably and fairly. This can be done either through audits or some form of disclosure to employees.

--Establish a base period and bonus formula that assures that bonuses will be paid from the outset of the plan. Otherwise, the work force may question the sincerity of management's interests to fairly reward the work force for improved performance.

--Establish a sharing plan in a way that permits periodic review and a fair and equitable adjustment of the formula for new capital equipment or changes in product mix.

--Do not consider sharing plans as a substitute for sound progressive management, but rather as a means of sharing a portion of management prerogatives with those who are an integral part of the production process--the employees.

--Do not consider sharing plans if the firm is not in a position to market additional production that can result from the implementation of a plan.

--Do not assume that sharing plans are implemented to avoid unionization; most of the firms surveyed had unions operating at the time of plan adoption.

--Do not use productivity sharing plans as a substitute for competitive wages and benefits. Once a sharing plan is adopted, wages and benefits must remain competitive.

--Do not assume that once a plan is implemented it will take care of itself. Constant monitoring and attention are needed.

Firm officials should also consider other programs and management techniques designed to motivate employees and raise productivity. Productivity sharing plans may not work in all firms. Yet, we have found that when properly implemented and administered, productivity sharing plans can effectively contribute to improved productivity.

PROFILE OF INTERVIEWED FIRMS

We categorized the 54 firms we contacted as follows:

--Those that had adopted a productivity sharing plan.

--Those that had considered implementing a plan.

--Those that did not use productivity sharing but did have other programs to motivate their workers.

TYPES OF INCENTIVE PLANS

Thirty-six of the firms we interviewed had productivity sharing plans. All but three of the plans were active at the time of our review.

Type of plan	Number of firms
Scanlon	17
Rucker	8
Improshare	11
Other	2
	a/ 38

a/The number of plans adds to 38 because two firms had different plans operating at two or more of its plants.

Twenty-two firms had a productivity sharing plan in effect for less than 5 years. The newest plan was 8 months old at the time of our review, the oldest was 29 years.

Age of productivity sharing plan	Number of firms	Percent
Less than 1 year	2	5.6
1 to 3 years	14	38.9
3 to 5 years	6	16.7
5 to 10 years	6	16.7
10 to 20 years	3	8.3
20 years or more	5	13.9
	36	100.1

Productivity sharing plans had been considered at nine of the firms we contacted. Seven of these companies had not made a final decision on whether or not to adopt a plan; two decided against productivity sharing.

The final category of firms comprised those that did not have productivity sharing plans. The nine firms interviewed had the following types of incentive plans.

Type of plan	Number of firms
Individual or group incentives based on engineered standards	5
Profit sharing	5
Quality of work life	4
Other	2
	a/ 16

a/ Several firms had more than one type of plan.

NATURE OF BUSINESS

Few service-type organizations have adopted or considered adopting productivity sharing plans. As illustrated on the next page, most of the firms we contacted were in the manufacturing sector.

Thirty-five firms were either publicly owned stock corporations or their susidiaries. The remaining 19 firms were private or family owned. An official at each of 11 firms described their companies as capital intensive; 21 said their firms were labor intensive; and 22 said their firms were both labor and capital intensive. Thirty, or 56 percent, of the firms were unionized.

SIZE OF FIRMS

The size of the firms contacted ranged from a small manufacturing company with less than 100 employees and $1.5 million in sales, to a multibillion-dollar corporation with more than 100,000 employees.

APPENDIX I

Manufacturing	Productivity sharing firms	Firms considering productivity sharing	Other firms	Total
Furniture	4	-	-	4
Paper, fiber, and wood products	1	1	-	2
Chemicals	1	2	-	3
Rubber and plastic products	2	-	-	2
Industrial and farm equipment	6	1	1	8
Glass, concrete, and abrasives	3	-	1	4
Metal manufacturing	3	-	-	3
Metal products	9	1	-	10
Electronics and appliances	1	2	1	4
Motor vehicles	3	-	1	4
Office equipment	-	-	2	2
Other manufacturing	2	1	1	4
Total manufacturing	35	8	7	50
Service				
Hospitals	1	-	-	1
Insurance	-	-	1	1
Banking and savings and loan	-	1	1	2
Total service	1	1	2	4
TOTAL	36	9	9	54

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